DOCUMENT RESUME

ED 204 015 PS 012 248

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TITLE Creative Thinking and the Education of Young Children: The Fourth Basic Skill.
PUB DATE 81
NOTE 17p.

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Class Activities; *Creative Thinking; Creativity; *Day Care; *Preschool Children; Preschool Education; *Teaching Methods

ABSTRACT

It is the responsibility of the early childhood educator to ensure that creative thinking is part of the preschool curriculum because of its beneficial effects on academic and social learning in the young child. There are basically seven strategies that can be used to facilitate creative thinking in young children. These strategies are: (1) allowing children to use physical objects in their own ways; (2) having adults model creative play behavior; (3) providing time for children to explore; (4) offering oral cues when children are showing creative thinking and imagination; (5) using descriptive elaboration of children's statements; (6) changing familiar objects to unfamiliar ones; and (7) adding related and unrelated objects to the young child's role playing activities. Examples of the use of the seven strategies are provided. (Author/RH)

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Creative Thinking and the Education of Young Children:

The Fourth Basic Skill

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Creative Thinking and the Education of Young Children:

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> Mrs. Southmardt, pausing over a drawing and inspecting it carefully, says, "Sally, penguins aren't green and they don't have red colored eyes, either!" Sally remarks, "Yes, they do 'cause I have seen them!" Miguel, working nearby Sally, chimes in, "Yes, they do too and I have one!" as he proudly shows his drawing of a large green penguin with fiery-red eyes.

Miguel and Sally are correct. Penguins are green (or any color) and they can have fiery-red eyes (for the writers have also "seen" them). These and countless other spontaneous contributions of preschool children show their creative thinking--their creative thoughts, actions, and activities permeate their classrooms.

Yet, adults working with young children develop and implement curriculum and indicate by their actions that creative thinking is not helpful or beneficial or even desired. Creative thinking has literally become an orphan in current curriculum planning, teaching and evalution in early childhood (Yawkey, 1980). Accordingly, the messages of this article are to: (a) show the importance of creative thinking to the young child's academic and social learning and development; and (b) show ways in which teachers in the preschool can facilitate creative thinking and expression in young children.

"WHY" Creative Thinking?

In order to understand the importance of creative expression and its relationships to the young child's academic and social learning, a definition of creative thinking is helpful. Inlow (1966, p. 155) views creative

thinking and expression as: the ability of the individual to relate sensitively, to think divergently, and to perform imaginatively in his/her confrontations with people and ideas.

The definition implies two important components. First, the definition says that creative thinking is a thought process--the same thought processes that are involved, for example, in counting from zero to five, in recognizing and pronouncing the word "cat," or in having the child print her first name, "Daisey." Creative thinking is also used in problem solving and for the understanding of new ideas and objects. Even though creative thinking is cognitive thinking basic to all academic skills, it is personal, individual, and self-oriented. In other words, creative thinking is revealed differently in every single youngster; it cannot be assessed as "right" or "wrong." Even though many teachers and aides in daycare and preschool know that creative thinking uses similar thinking skills found in performing the three basic "R's" of reading, 'rithmetic, and 'riting, they fail to understand that: IT CANNOT BE CONSIDERED AS "RIGHT" OR "WRONG"; and, IS INDIVIDUAL AND PERSONAL TO THE YOUNGSTER (Guilford, 1969; Mand, 1974; Yawkey, 1980).

Second, Inlow's (1966) definition of creative thinking implies a relationship to academic learning and social growth. Results of studies by Wattenberg and Clifford (1967), Hatcher, Felker, and Treffinger (1974), and Yawkey (1980, 1981) show conclusively that creative thinking is related to reading ability and self concept and that facilitating creative thinking and imaginativeness can encourage reading and arithmetical abilities in daycare and preschool children. Further, the results of the research completed by Wilson, Guilford, and Christensen (1953) indicate that creative thinking is very highly correlated with self concept and academic and social learning--the viable elements of intelligence (Guilford, 1956).

In sum, the facts are that creative thinking is: (a) a thought process; (b) one of the four basic skill areas; (c) personal and individual; (d) always "right," yet modifiable for each individual; and (e) related to, and a facilitator of reading, arithmetic, and self concept. It is up to the early childhood educator to insure that creative thinking is part of his/her classroom and preschool curricula because of its beneficial effects on academic and social learning in the young child (Peters, Neisworth and Yawkey, 1981). Similar to reading and the other basic skills, creative thinking is taught and learned. Creative thinking is best taught as a part of ongoing curricular activities and classroom lessons (Yawkey, Askov, Cartwright, Dupuis, Fairchild and Yawkey, 1981). In the following section, specific ways of teaching creative thinking as a part of ongoing curricular activities, preschool classroom lessons, and teacher actions are described.

Facilitating Creative Thought in Daycare Settings

There are basically seven strategies that can be used to facilitate creative thinking with young children (Yawkey, Cartwright, Askov, Dupuis, Fairchild and Yawkey, 1981). These strategies are: (a) physical cues; (b) adult playfulness; (c) exploration; (d) oral cues; (e) description; (f) modifying objects; and (g) adding objects (Yawkey, Cartwright, Askov, Dupuis, Fairchild and Yawkey, 1981). Each strategy, used along or in combination with other strategies, provides a stimulating creative thinking motivator for the young child during both work and play times.

Physical Cues. This strategy focuses on permitting the youngster to use physical objects in his/her own ways. Physical cues are personal signals and prompts to children which tell them to "use objects in their own ways." By using physical objects in their own ways and for their own

desires, creative thinking is fostered. The strategy of physical cues implies two things to the early childhood teacher. First, the classroom must have a quantity of materials which are made available to the children. A quantity of materials helps youngsters "climb into various roles" and "gives them the opportunity" to use creative thought with these objects and roles. Second, the materials in the classroom must show variety. In order to have variety of materials, the teacher can: (a) provide the types of objects which are interesting to the children; (b) purchase specific materials which are preferred by the children; (c) purchase them on the basis of use and function and not on the basis of advertising appeal; and (d) insure that the materials are safe to use in classroom settings and not breakable or toxic.

In order to facilitate the exploratory, creative, and imaginative use of the materials, the following strategies are suggested:

1. The caretaker introduces a new toy airplane while enthusiastically stating, "This airplane is not the same as our others. Who can tell us how it is different? Let's compare color, shape, size, and how fast each flies.
2. Approaching two four-year-olds who are playing with dolls, the adult says, "See the new doll house! The dolls will fit perfectly inside the house! Let's name the rooms of the house together."
3. Joining a small group of youngsters and carrying a new set of building blocks, the preschool teacher exclaims, "Look at these square, triangle, and circle block designs! Can we join the blocks to make a pattern of all the designs?"
4. Introducing a set of pipecleaners, styrofoam balls, and felt pieces, the caretaker suggests, "Let's see how many different people or

animals we can design! Than we'll give them funny, new names. Jeff, yours looks like a spider and a monkey; we could call it a spidermonk!"

5. Observing a group of three children building a village, the caretaker says, "Look at these new little trees and road signs. Can you find good places for them in the village?"
6. Holding a mysterious looking plastic shape, the caretaker asks, "Who can tell us some ways to use this mystery shape? Do you think we can guess five ways? Ten ways? Good! Let's list them."

Adult Playfulness. This strategy suggests that the preschool teacher act out and show a model of a creative person. Modeling and acting out the role of a creative individual helps the youngster to see, copy, and use creative thinking processes, actions, activities, and gestures. Role playing the part and showing adult playfulness reinforces the use of creative thinking by the children. Further, it shows the the child's creative thinking is accepted by the adult. Examples depicting the strategy of adult playfulness include:

1. The adult pretends to climb the beanstalk as the children portray the story Jack and the Beanstalk. All gasp for air, as the adult cries, "How much farther must we climb to reach the top?"
2. Imagining "as if" he or she is a "Maypole" around which the children dance and sing, the adult chants, "I am a Maypole, tall as can be; Won't you come now, and dance 'round me?"
3. Observing the youngster who is role playing "Mother," the teacher or aide asks, "Would your baby like something to eat?" or "I hope you take your baby on a walk; she would enjoy it!"

4. Pretending to be a postal person, the adult distributes "letters" to the youngsters, stating, "Oh, here's one from Uncle Ed in New York"; and "Look, Cousin Virgil from Denmark sends you a postcard of a big canal!"
5. Calling "Caw! Caw!" the adult and the youngsters pretend to be crows in Mr. McGregor's corn patch.
6. Acting "as if" you are a mechanical man or woman, the adult stands rigidly and states, "I am Robert(a) Robot. I am at your command. Give me orders and I will obey."

Exploration. The strategy of exploration asks the early childhood teacher to simply provide time in the classroom schedule in which the children can investigate and explore new objects and materials prior to their use in creative thinking. In this context, exploration gives the youngsters time to "warm-up" for creative thinking by playing with, experiencing, and using the materials. The strategy of opportunity also develops motivation because the youngsters ease into problem solving; it provides the time for them to see which objects and materials they prefer to use. In order to use the strategy of exploration, the adult working with young children can:

1. spread out the materials for them to see, handle, and use for experimenting.
2. wait for periods of time until materials and objects are selected.
3. talk about them and their physical properties (e.g., color, texture, shape) and how they function (e.g., bouncing, holding, pushing, pulling, stacking).

Additionally, the adult's role in promoting exploration can be enhanced through use of verbal statements, such as the following:

1. "On the table today I've placed some pebbles, some water, clay, flour, and many turkey feathers. Let's experiment with these things and see what we can discover."
2. As the youngsters gather for play time, the caregiver explains, "I have hidden some of the toys in the play area today. How many of them can you find?"
3. "Our toys are fun to touch! Play with them, and then I'll come around to talk with you. We'll talk about the hard, scratchy, soft, smooth, and bumpy toys."
4. The adult buries a toy turtle underneath a thick mass of clay. Feigning alarm, he or she cries, "Terry is in trouble! Let's use this string, this spade, this water, and this cup to help poor Terry."

Oral Cues. Oral cues are an extremely important strategy in fostering and facilitating creative thinking. To use this strategy, the adult simply talks to the youngsters as they are showing creative thinking. The talking can be in the form of statements, comments, or questions. The purpose of this talking is to challenge them to show additional creative thinking and imagination. From the child's perspectives, oral cues are "idea sparkers." In using oral cues, the adult working with young children must show timing and sensitivity. Timing means simply offering a statement, comment, or question at an appropriate time--when the children are showing creative thinking and imagination. Showing sensitivity in oral cues involves early childhood teachers putting themselves in children's shoes and determining how adults would feel if the comments were suggested, instead, to them. Several examples of oral cues follow:

1. "Show how dolly would walk to the store to buy some bread!"

2. "Jose, could your make-believe friend and you go to the post office and pick up a package?"
3. "Luke Skywalker is taking a ride into space. Ivan, would Princess Leah like to ride along?"
4. "Beth, I see that you're ironing the shirt with the flat rock. What else needs to be ironed?
5. "It's fun to pretend to be a baby sometimes, isn't it, Louise? How does the baby cry?"

Description. Description is another ideal strategy to use in facilitating creative thinking because it helps youngsters express their creative ideas as vividly and clearly as possible. The purpose in using description is to make oral language "come alive" and the ideas appear as concrete as possible. The strategy of description requires children to understand their creative thinking and practice and expand it. For example, the youngster says, "Jump, jump over the fires and logs!" In using the description strategy, the early childhood teacher repeats the youngster's statement and adds words that build pictures and images in his/her mind. Here, for example, the adult repeats, adds, and says, "Jump up and jump down--over the hot and red fires and brown, bark-covered, round logs." This strategy also facilitates the use of creative thinking in the child's language.

Further examples of adult descriptions, resulting from the youngster's statements, include:

1. Child: "I go school."
   Adult: "You go to school almost every day. Then you work and play and go back home again."
2. Child: "No want cookie."

Adult: "You don't want the cookie. You don't like lemon drop cookies. But you love the crunchy, chocolate frosted cookies!"

3. Child: "I saw bear tomorrow at zoo."

   Adult: "Yes, you saw a bear yesterday at the zoo. And tomorrow we will read this new story about bears!"

4. Child: "Me want Barbie."

   Adult: "You want the blonde Barbie doll that Jack Le Boi has. You and Jackie both like to play with Barbie."

5. Child: "These red; these blue; these green!"

   Adult: "That's right, Pedro! You have arranged the buttons into three smaller piles; a large red pile; a medium-sized blue pile; and a tiny green pile!"

Modifying Objects. In order to use this strategy, the early childhood teacher changes familiar objects to unfamiliar ones by changing their physical characteristics. When the educator sees that the children have become familiar with materials in the classroom and also notices that their creative thinking and expression is decreasing with these objects, the strategy of modifying objects can be used. Here, physical attributes of familiar and common objects are changed. In turn, the objects themselves change from familiar to unfamiliar ones. The changing of objects from familiar to unfamiliar ones increases the potential for creative thinking to develop. Modifying objects can be performed in a number of ways. First, the early childhood teacher can remove common and familiar objects from the classroom environment for a period of time. Then, these same materials can be returned to the classroom. The youngsters' interest and their use of creative thought with them increases as a result. Second, the actual

physical characteristics of the objects can be modified or altered in some form or fashion. For example, the teacher can paint patterns such as stripes on objects. Stitching pieces of cloth to costumes or nailing objects to wood materials help change and revise the originals. This change in physical properties helps stimulate and increase creative thinking and use of these materials in a variety of different ways.

The adult, for instance, may say the following:

1. "Can we change the Sonya Snake costume into a Herbert Hampster costume for our play? How? What must we take away or add to Sonya to make a hampster? Perhaps this stuffed hampster will help you to decide."
2. "You each have a shiny toy car to play with. Let's build a super racetrack in the sandbox. Then we'll race the cars in the Indianapolis 500!"
3. "I've removed five toys from our toy box today. And there are seven new toys in their place. We saw some of the new toys in Bradley's department store on our field trip."
4. "Sometimes it's hard for us to read the little paper names on our lockers. Let's make some new, very special locker signs using magic markers and these great big sheets of paper."
5. "Mr. Howard is bringing us a large tree branch today. We'll pot it in the clay. How can we change the tree so that our room shows that Valentine's Day is here?"

Adding Objects. Adding materials to the young child's role playing activities facilitates creative thinking for he/she must now try to figure out how to use and include them in their play. Here, the youngster seeks ways of integrating and incorporating them into their actions and activities;

creative thinking flourishes. There are basically two ways of using this strategy to encourage creative thinking. First, the early childhood educator can add objects that are physically related to the theme of the creative thought. For example, the youngster imagines that he is a scientist who is at work making a monster. Adding physical objects that are related to this theme means introducing materials that can fit into the child's content of his/her creative thinking. Here, the adult can add a monster mask removed from a Halloween costume.

Role play situations which are also appropriate for the use of physically related objects include:

1. The educator gives a note pad to the child, who is intently talking to various imaginary friends on the toy telephone and states, "Carlo, you're really having fun on the phone! Will you please take a message for Grandma? Write her a note that the plumber called and wants to fix her sink."
2. The youngsters pretend to plant zinnia seeds in the sand. Holding a tray of tiny, colorful plastic chips or confetti, the adult informs the children, "Here are some lily, crocus, chrysanthemum, and iris seeds for you. Would you like to plant them in your garden, too?"
3. Using long wooden blocks as skiis and toy brooms as ski poles, the child pretends that he or she is atop a huge snow-covered mountain. Gathering assorted pieces of woolen cloth and old clothing, the teacher exclaims, "You look so cold on that mountain! I'll help you make some warm, down clothing to protect you from the arctic winds."

In similar fashion, the teacher can introduce physically unrelated objects to the theme of the child's creative thinking. Using the above theme, "The Making of a Monster," the adult can give the children objects such as: (a) a sheriff's badge; and (b) some chalk. In using both related and unrelated objects, the child's responsibility is to use the materials and incorporate them into his/her creative thinking activities.

Three additional examples of using physically unrelated objects with role playing children include:

1. A group of children are playing and singing "The Farmer in the Dell." The adult places an oversized stuffed yak in the circle's periphery. The children revise the song to include, for instance, "The nurse takes the yak, the nurse takes the yak; Heigh-ho, the derry-o, the nurse takes the yak!"
2. Four youngsters pretend to eat dinner at the miniature table and chairs. Displaying an unclaimed set of Lincoln Logs, the adult visits the diners, saying, "Perhaps you can use these logs in a new way to add to your meal." The children construct toy plates, silverware, and even gourmet food from the objects!
3. Several youngsters, role playing a visit to a barber shop, are becoming tired of the game. The adult at this time introduces a hammer, a stethoscope, a yardstick, and a gavel. The children, as a result, eagerly revise the role play to include the various new items and occupations.

In sum, creative thinking is basic to all daycare and preschool classrooms and actitivites with young children. It is related to, and can facilitate, academic and social learning. Facilitating creative thinking means using seven basic strategies: (a) physical cues; (b) adult playfulness;

(c) exploration; (d) oral cues; (e) description; (f) modifying objects; and (g) adding objects (Yawkey, Cartwright, Askov, Dupuis, Fairchild and Yawkey, 1981).

The importance of creative thinking to the young child's academic and social learning and development is exemplified. In addition, through the selection and wise use of the seven strategies to facilitate creative thinking, a famous media commentator, Paul Harvey, would now say, "You are the rest of the story!"

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